

**REMARKS**

In the Office Action mailed November 6, 2003, claims 1-26 were pending for consideration. Each of these claims was rejected on various statutory grounds. Claims 1-26 are currently pending. Accordingly, reconsideration of all claims in light of the following remarks is respectfully requested.

**Rejections Under 35 U.S.C. 112**

The Examiner has rejected claim 9 under 35 U.S.C. 112, second paragraph, as being allegedly indefinite. Specifically, the Examiner stated that claim 9 lacked proper antecedent basis for the term "tungsten carbide" as such term was not part of the group recited in Claim 8. By the present amendment, the dependency of Claim 9 has been changed to depend from claim 7. Thus, the Applicant respectfully submits that such rejection is moot and respectfully requests that the rejection be withdrawn.

**Rejections Under 35 U.S.C. 102**

Before discussing the rejection, it is thought proper to briefly state what is required to sustain such a rejection. A rejection under 35 U.S.C. 102 can only be sustained if the statutory anticipation requirements are met. In order to show anticipation of the claimed invention, the Examiner must establish the rejection is under a single prior art reference. Accordingly, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described." Verdegall Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Thus, if a single prior art reference does not teach each and every element of a claimed invention, an anticipatory rejection cannot be established. The Applicant respectfully asserts the Examiner has not satisfied the

requirements for establishing an anticipatory rejection against the instantly claimed invention under any of the asserted prior art references.

#### The Present Invention

As recited by the pending claims, the present invention is a dressing tool that is specifically designed in order to be suitable for use with a fixed abrasive CMP pad. As discussed in the background section of the specification, a fixed abrasive CMP pad differs from a traditional pad dresser in that it contains poles or protrusions with abrasive particles attached thereto in order to help with polishing. By contrast, conventional pad dressers do not have poles per se, but are more fibrous in nature. Further, abrasive particles are not fixed in the pad, but are added as part of a chemical slurry dispensed onto the pad during polishing.

As a result of the polishing, debris from the workpiece being polished clogs the spaces between the poles, and the poles can become bent. The act of dressing a pad with a dressing tool is performed in order to clean the debris from between the poles and to bring the poles erect once again.

Since a fixed abrasive pad has the abrasive particles fixed to the poles, it is important that the dresser be able to dress the pad without dislodging the abrasive particles. Further, it is important that the dresser not damage or remove the poles themselves.

It has been discovered that traditional pad dressers are unsuitable for dressing a fixed abrasive pad as the protrusions on the dresser tend to dislodge the abrasive particles from the poles of the pad, and in many cases remove the poles as well. Accordingly, the pad dresser as recited in claim 1 contains small projections. As defined on pg. 10, ln. 10-15, of the specification, small projections are projections that

are of a size that is suitable for properly conditioning or dressing a fixed abrasive pad without substantially damaging or dislodging the poles.

Rejection Under 35 U.S.C. 102(b)

The Examiner has rejected claims 1-2, 5-7, and 10-16 under 35 U.S.C. 102(b) as allegedly being anticipated by United States Patent No. 6,027,659 to Billett (hereinafter, "Billett"). Billett teaches an apparatus for conditioning traditional CMP polishing pads, where the traditional CMP polishing pads are used in conjunction with an abrasive slurry for chemical-mechanical polishing of integrated circuits and other semiconductor devices. (col. 1, ln. 13-23 and col. 3, ln. 7-20). The apparatus has a substrate with a conditioning surface and protrusions identified as conditioning points or integral points (col. 3, ln. 20-33).

However, Billett does not discuss fixed abrasive CMP pads and fails to teach or suggest that the apparatus can be used for conditioning fixed abrasive CMP pads. Further, Billett does not teach a plurality of small projections (i.e. projections of a size that are suitable for dressing a fixed abrasive CMP pad without substantially damaging it) on a working surface as instantly claimed.

As a result, the Billett reference does not disclose each and every element of any of claims 1-2, 5-7, and 10-16, and therefore fails to anticipate them. Applicants therefore respectfully requests withdrawal that the rejection be withdrawn.

Rejection Under 35 U.S.C. 102(e)

The Examiner has rejected claims 1-26 under 35 U.S.C. 102(e) as being allegedly anticipated by United States Patent No. 6,439,986 to Myoung et al. (hereinafter, "Myoung"). Myoung teaches an apparatus for conditioning the same type of traditional CMP polishing pad (abstract) as Billett. The apparatus has a substrate and a plurality of geometrical protrusions of uniformed height, which can be

made of ceramic or cemented carbide material (abstract). The geometrical protrusions have a height of 200 microns, with a plurality of notches cut into the distal end of thereof. The notches create sub-protrusions with a height of 30 microns. However, the height of the protrusion overall still remains at 200 microns, which would be unsuitable for dressing a fixed abrasive CMP pad.

Myoung does not mention fixed abrasive pads, and does not teach or suggest that the disclosed apparatus can be used for conditioning fixed abrasive CMP pads. Additionally, Myoung does not teach a plurality of small projections within the meaning of the present invention on a working surface as mandated by the present claimed.

As a result, Myoung fails to disclose each and every element of the present claims 1-26, and does not anticipate them. Applicants therefore respectfully request that the rejection be withdrawn.

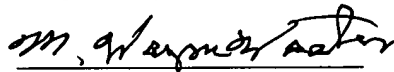
**CONCLUSION**

In view of the foregoing, the Applicant believes that claims 1-26 present allowable subject matter and allowance thereof is respectfully requested. If any impediment to the allowance of these claims remains after consideration of the above remarks, and such impediment could be removed during a telephone interview, the Examiner is invited to telephone Mr. David Osborne, or in his absence, the undersigned attorney at (801) 566-6633, so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees except for Issue Fee or credit any overpayment to Deposit Account No. 20-0100.

Dated this 16 day of MARCH, 2004.

Respectfully submitted,



M. Wayne Western  
Attorney for Applicant  
Registration No. 22,788

David W. Osborne  
Attorney for Applicant  
Registration No. 44,989

Of:

THORPE NORTH & WESTERN, LLP  
Customer No. 20,551  
8180 South 700 East, Suite 200  
Sandy, Utah 84070  
(801) 566-6633

  
MWW/DWO